ADDRESS OF THE HONORABLE JOHN E. FOGARTY, M. C., SECOND DISTRICT RHODE ISLAND, AT THE ANNUAL MEETING OF THE ASSOCIATION OF SOUTHERN MEDICAL SCHOOLS & TEACHING HOSPITALS HELD AT DUKE UNIVERSITY MEDICAL SCHOOL, DURHAM, NORTH CAROLINA ON APRIL 9, 1961

National Goals in Medical Research & Education

It is always a privilege for me to discuss health and medical problems with those who are concerned professionally with these problems, particularly in an area outside my native New England and adjacent sections of the East.

Like most members of the Congress, I feel that my responsibilities are to the Nation as a whole as well as to my home district in Rhode Island. As Chairman of the Sub-Committee of the House which has responsibility -- among other things -- for the annual appropriations for the Public Health Service, my work directly influences the scope and directions not only of the programs of Federal and State health agencies but also of virtually the entire nation apparatus for medical research and research training.

This was not always so. When I first became a member of the Sub-Committee some 20 years ago, we were concerned mainly

with the communicable disease control and related intramural research activities of the Federal Public Health Service. For a number of good reasons which can be summarized in two words -- "National Needs" -- our responsibilities have since increased very considerably. The chronic diseases emerged as major national health problems. The lack of knowledge about their origins, course, treatment and prevention required a national strengthening of research in such fields as cancer, cardiovascular disease, mental illness, arthritis and the neurological disorders. Efforts in these directions led inevitably to the need for strengthening non-categorical research.

In all of these fields the state of knowledge was such that very great emphasis had to be given to the study of fundamental problems, which meant principally laboratory approaches.

This work, carried on by means of research grants, research construction assistance and research training grants administered by the National Institutes of Health has in the past decade attained

a truly amazing scope, vigor and productiveness. It has also led us into a variety of associated problems and program needs which have been under intensive study for some time by our committee as well as its counterpart in the Senate -- headed by my distinguished colleague, Senator Lister Hill of Alabama.

Before considering these associated problems in detail I should like to describe very briefly how my committee obtains the facts and expert judgments which it must have in order to fulfill its responsibilities to the people of the United States.

First, the professional and administrative leaders in various governmental agencies -- in our case, the various bureaus of the Public Health Service -- work up each year estimates of how much money they will need for specific activities already authorized by law and by previous appropriations. In addition, requests are made for new activities requiring either special authorization by Congress, or authorization which may be given through the appropriations process. Detailed written justifications

accompany these requests, and in addition, the officials must answer searching questions by committee members and our staff.

Second, the committee seeks the formal opinions, both written and oral, of outstanding non-Federal experts in all the fields and problems under consideration. These may be in the form of individual advice, or of institutional judgments, or as the result of organized studies conducted for the Congress by a group of such experts.

Third, committee members obtain informal judgments and suggestions through discussions with individuals and groups -- both professional and non-professional -- in Washington, in our home states, and by means of meetings such as this in all parts of the country.

It has been through these processes that my committee -- along with a large number of scientists, educators, and administrators have come to the conclusion that the Federal Government must do more than simply continue to support more research projects

build more research facilities, and train more research people. If this concentration and proliferation in research were to continue unchanged, then the strength of the institutions we support -- instead of improving -- would actually decline. It has therefore become necessary for us to think not only in terms of the end product we seek -- better health for the people of this country -- but also in terms of the institutions and the people that comprise the institutions that carry on the bulk of the Nation's medical research.

Institutional Research Grants

First, a new program for providing institutional research grants has been authorized by the Congress to be administered by the National Institutes of Health. Under this program funds would be made available to public and nonprofit educational or research institutions to assist in the development and maintenance of sound, well-balanced programs of general research and research training in medical, dental, public health and related areas.

This authorization was made in an attempt to help solve some of the problems which grantee institutions feel have been created in recent years by the phenomenal growth of funds for research in medicine and biology. A large part of that growth has been due to Federal grants. Therefore our Committee felt that if clear evidence could be presented concerning real difficulties in our research institutions, corrective action in the Federal granting programs would be justified. I am frank to admit that so far as I am concerned, rather convincing evidence was recently presented by witnesses before our Committee.

Let me cite some statistics to indicate the impact of that rising level of research support upon the recipient institutions: From 1947 until the fall of 1960 nearly all NIH research grants were made to individual scientists working in non-Federal research institutions. The dollar volume of these grants increased from $3.5 million to $306 million, and the number of grants rose to more than 11,000. Within single institutions such as universities,

for example, there could be more than 100 scientists working on separate NIH-supported projects. According to the responsible officials of many leading institutions, this has created certain imbalances and rigidities which need correction.

To meet the problem of providing enough money to insure full productivity by individual investigators, while at the same time giving the educational institutions more flexibility in developing their total research efforts, the Institutional Research Grant Program was authorized by the Congress in August 1960 in the form of an amendment to the Public Health Service Act.

In essence, the new program would provide general, in addition to specific, project funds to universities and medical schools, along with authority for the institutions to expend these funds among their research and training projects in accordance with their over-all objectives. Coupled with assurances of long-term support, the funds would enable the educational institutions to develop their research and research training programs in a consistent

and planned manner, to provide stable, career support for their established investigators and to aid their younger scientists. The program would augment rather than replace the system of grants to individual scientists for the support of specific projects.

The law provides that the program will be financed by a percentage, not to exceed 15 percent, of the total funds appropriated each year to NIH for research grants. NIH has proposed that for the first fiscal year the percentage will be 5 percent. In the second fiscal year the funds might increase to 10 percent of the total NIH research grant appropriation, and in the third year to the legal maximum of 15 percent. It has not yet been determined whether the program will be initiated with fiscal 1961 funds.

The amount to be awarded to each educational institution would be based upon a formula which takes several factors into account, with special emphasis on the amount of research being carried on by the institution with non-Federal financing.

Now lest you infer that the day of the individual research project is passing from the scene, I assure you that individual projects would continue to be the largest segment of the total research grant program. The broader grants of the institutional type protect and extend the freedom of educational institutions to determine the character and direction of their research activities.

Clinical Research Facilities

The clinical research facility program was established in the fall of 1959 by the National Institutes of Health as the result of recommendations by the Congress in the fiscal year 1960 appropriations. Design of the program, providing special grants to non-Federal research institutions, was in accord with Congressional emphasis on the needs for additional bio-medical research resources to facilitate the more complex types of clinical investigations in a broad spectrum of diseases and health-related sciences.

Totally, the program aims to provide support for a variety of basic and clinical research efforts on a broad variety of diseases and fundamental biomedical problems. The similar clinical facility programs of six NIH categorical Institutes are concerned primarily with a particular type or group of diseases, such as heart disease or cancer.

Behind the original Congressional action were the considerations that (1) clinical research has been insufficient because of a lack of adequate means to provide the careful observation and control needed for research in the complexities of human biology; and (2) that valuable research in animals or chemical laboratories often has not been carried over into studies in human patients because of a lack of proper research facilities and conditions. One of the principal reasons for these deficiencies has been the high costs of clinical research.

A clinical research facility is defind as a resource within a medical institution, aimed at enhancing the quality and quantity

of clinical investigations. It is a discrete physical unit or research ward of about 10 to 20 beds in a hospital, but apart from the general care wards, with a stable, well-trained nursing and dietetic staff to provide precise control and observation, and with directly supporting specialized laboratory facilities.

The grant funds pay for the renovation and equipment of the centers, the costs of the care of research patients (including specialized nursing, diet kitchens, and other services), supporting laboratories and certain staff salaries.

In these facilities, scientists can carry on coordinated investigations is a wide range of diseases and basic scientific problems. NIH cites as an example of such cooperative work, the problem of transplanting human tissues and organs. Advances in both the basic sciences, such as chemistry and immunology, and in the clinical sciences, such as surgery and internal medicine, are necessary before important progress can be made in transplantation techniques.

In setting up this new program, NIH has encountered many difficult administrative problems in such areas as specific eligibility requirements for grants, organizing a competent staff to review and process the applications, and obtaining suitable review and recommendations by the several national advisory councils involved.

Nevertheless, good progress has been made during the past several months. First-year grants averaging about a half-million dollars each have been made to 19 institutions located in every region of the country. In the South the following awards might be of interest to this group:

Johns Hopkins University School of Medicine	$379,054
Emory University	$396,179
University of Maryland School of Medicine	$601,868
Duke University Medical Center	$288,100
University of North Carolina School of Medicine	$287,884
Vanderbilt University School of Medicine	$456,964

Thus far all the awards have been for general clinical research facilities. The six NIH categorical Institutes received their funds and authorizations for grants to establish specialized clinical research facilities a year after the general facility authorization and thus have not yet made any grants. Our committee has been informed that many very worth-while applications are being received and that grants will commence in a short time.

The beginnings and research scope planned for one of the general facilities will provide a clue to the vigor that has characterized the start of this program.

The University of Washington, Seattle, received a first year grant of $321,248 in May, 1960. A 12-bed research facility was opened on July 1 and the first two patients admitted on July 19. A report to NIH from the University says:

"A progressive, planned build-up of census

has occurred to date, representing maximum current work capacity for the number of nurses thus far employed on the unit. Of 19 research projects approved by the Advisory Scientific Committee within the Clinical Research Center facility, 10 already have been activated."

Aid to Medical Education

Finally, I wish to discuss at some length the question of improving the quantity while retaining and even increasing the quality of our national production of new physicians, dentists and related professional workers in the health disciplines.

Studies made by my Committee and by other responsible groups over the past 2 or 3 years indicate that our medical schools are losing ground in the competition for superior college students.

During the current fiscal year approximately 10,000

pre-doctoral fellowships in the physical, life, and social sciences, psychology, engineering, the arts, humanities and education will be awarded by four Federal agencies--the Department of State, the National Science Foundation, the Office of Education, and the National Institutes of Health.

The recipients of these fellowships receive a stipend of from $1,800 to $2,500, plus $500 allowance for each dependent, and travel allowances. Full tuition is paid to the institution which the recipient chooses to attend, and, in some instances an additional subsidy to the institution is provided. College enrollments in these and other fields are rapidly increasing.

In contrast during the last 3 years, the number of college students applying to medical schools has dropped. This has occurred at a time when the number of college graduates has been increasing. Furthermore, the quality of applicants has decreased. These trends have occurred to a degree which constitutes a serious threat to the

necessary increase in the number of physicians in the future. It is a threat also to the quality of future graduates.

Against this decline of medical school applications is the fact that, today, this country has a relative shortage of medical manpower. This shortage will become both absolute and acute in the years ahead unless action is taken.

Why has this situation developed? A committee of experts appointed to study this entire problem reported last year that it found four principal reasons for the impending physician shortage: (1) The tremendous increase in population in the past 20 years - from 132 million in 1940 to 180 million in 1960. (2) We have not expanded our production of physicians at a sufficient rate to meet the needs for medical care of the increasing popylation in addition to the augmented needs for teaching and research.

(3) The shift in the U.S. population distribution resulting in a greater percentage of the very young and very old who require the greatest amount of medical care.

(4) The demand for health services resulting from our rising standard of living, wide expansion of hospital and medical insurance, and the increasing health-consciousness of our people.

In addition there are such factors as the great length and cost of medical training and the fact that many other satisfying and intellectually stimulating scientific careers with high prestige and adequate financial reward have developed during the past 20 years.

The financial problems of medical students are severe. Over half of all medical school graduates in the 1959 class were in debt to some degree, and 20 percent had indebtedness of $4,800 or more. Medical schools' tuitions have continued to rise and the average cost of

four years of medical school was found to be approximately $11,600 for those graduating in 1959. Scholarship support has been meager, students hesitate to shoulder a large loan, and the curriculum is so demanding that few students can carry a part-time job without considerable sacrifice of time needed for their studies. Thus the choice of medicine as a career has been to a considerable extent influenced by financial factors, and many promising college graduates who would have liked to study medicine have been discouraged.

To help remedy this situation it has become apparent to me that (1) the Federal government must provide direct assistance to the teaching functions of medical and related schools; (2) that the Federal government should supplement private, industrial, and State sources in providing scholarship, fellowship, and loan assistance to medical and dental students as it now does to Ph.D. candidates in the basic sciences; and (3) it should relieve the

serious financial and administrative imbalances between the research and teaching functions of the medical schools.

To correct these imbalances and to provide the Federal funds that the medical and related health professional schools need if current and future manpower needs are to be met is the objective of several legislative proposals now being studied in the Congress. I would like to describe very briefly my own bills which I believe would go a long way toward helping meet our national needs in this area.

On January 25 of this year I introduced a bill which would provide for a 10-year program of grants for education in the fields of medicine and dentistry to be administered by the U.S. Public Health Service. Under this program each accredited degree granting medical and dental school would receive a block grant of $100,000 each year, together with $500 for each student, plus $500 additional for each student enrolled in excess of average past enrollment.

For schools providing only one, two or three years of professional training in medicine or dentistry, block grants of $25,000, $50,000, and $75,000 respectively would be awarded.

These funds could be used by the schools to meet the costs of establishing, maintaining and enlarging their teaching staffs and of maintaining, acquiring, and operating the necessary equipment.

Here I should like to emphasize that these funds are to meet the costs of new or expanded instruction programs. Special training projects outside the regular curriculum which are financed with other public funds or private grants are excluded. The same exclusion applies to the costs of research and to the operations of any hospitals.

My bill applies a few conditions for institutional eligibility for Federal grants that I believe you will agree are entirely reasonable and desirable:

(1) The school must be either a public or a non-profit private institution located within the United States. (2) The school must provide reasonable opportunity for the admission of out-of-state students. (3) During the period it is receiving Federal payments, the school must make every reasonable effort to maintain its income for operating expenses from sources other than the Federal Government at a level equal to that which existed before receiving Federal funds. In the case of a new school, similar efforts should be made to obtain such non-Federal operating income at the highest possible level. (4) The school will submit from time to time such reports as the Surgeon General may reasonably require to assure that these purposes are being carried out.

To advise the Surgeon General on the policies and regulations under which the program would operate, there would be established a National Council on Education for Health. In additional to the Surgeon General who would

be ex-officio chairman and the Commissioner of Education who would be an ex-officio member, the Council would consist of ten leaders in the fields of health sciences, education, or public affairs. Four of the ten would be persons actively engaged in the field of professional health education.

On the day after this first bill was offered, I introduced a second piece of legislation designed to provide scholarships to medical and dental students through the states. Under this plan, each state wishing to participate would establish a Commission on medical and dental scholarships or designate an existing agency to serve as the State Commission. The Commission would develop a plan covering a certain broad eligibility requirements which are spelled out in my bill, which stipulates that the annual stipend paid any individual would not exceed $1,250 of Federal funds or ½ the amount of the total awarded to the student. My plan also provides

that insofar as possible 75 percent of Federal funds awarded the State Commission must be used for medical and 25 percent for dental scholarships.

Another important requirement is that the State Commission review annually the educational progress being made by each scholarship student.

To finance the program the bill calls for an appropriation of $5 million for the first fiscal year beginning July 1, 1961; $10 million for the next fiscal year; and an equal amount for the next eight years.

The Surgeon General will be advised on policies, regulations and administration of this program by a National Advisory Committee on Medical and Dental scholarships. This group will include the Surgeon General, who shall also serve as Chairman, the Commissioner of Education and 10 members appointed by the Secretary of Health, Education, and Welfare. Three of these shall be recognized authorities in the field of professional education, three

shall be teachers or practitioners in medicine or dentistry and four shall represent the general public.

Since my bills were introduced, others having the same general objectives have been proposed, following up on the request made by President Kennedy in his health message of February 9 that over the next decade the capacity of medical schools be increased by 50 percent and of dental schools by 100 percent.

I am particularly impressed with one of the provisions of one of these which would help expand the teaching facilities in much the same fashion that the research facilities of the schools and universities have been expanded by Federal grants in recent years.

Under that provision a new 10-year construction grant program would increase the facilities for training physicians, dentists, and professional public health workers by providing Federal funds to match non-Federal money for new schools or for major expansion of existing

schools. Priorities would be based on the amount of training expansion the construction would make possible and on distributing training opportunities geographically.

Construction grants could be made for any facility needed in teaching medical, dental, or public health students, including teaching hospitals. Where new schools are being built or existing schools are being expanded, the Federal share of construction costs could go as high as 66 2/3 percent. Other grants would not dover more than 50 percent of construction costs.

The proposed bill would also extend, I am glad to say, the present legislative authority for research facilities grants for three years and strengthen it by increasing the present authorization from $30 million to $50 million annually. The existing backlog of over $60 million in preliminary and final grant applications, gives widespread evidence of over-crowding of available facilities in research institutions throughout the

country, and the proposed rapid expansion of training programs all underscore the need to extend and increase the present authority for financing the building and improving of research facilities.

The law would modify the present act, permitting the Federal Government to meet the total cost of a facility to be used for research and other related purposes, including research training. For other multipurpose facilities, the Federal portion of construction costs would be limited to the research part or proportionate use of the facility.

I believe the needs are so clearly apparent that this Congress will take affirmative action of some kind. Whatever that action may be, I will do all in my power to make certain that it does not lead to Federal control.

I am committed, as I believe you are, to the principle that teaching at every level and in every field of science must remain free of central domination. It must retain flexibility to meet rapidly changing scientific patterns

and the particular needs of diverse geographical areas. Finally, it must truly reflect the wishes of the scientific and academic community. All of these requisites are served best when governmental financing responsibility is shared by non-governmental funds and interests and guided by non-governmental advice. My proposals stress this factor, and I believe, reflect the wishes of all who know the importance of maintaining the integrity of teaching, of medicine, and of science.

Fifteen years of experience with the NIH research grants, research training and research construction grants programs have demonstrated that Federal assistance has not brought Federal control. Instead they have been programs of, by and for free inquiry. They have nourished freedom rather than restricted it. They have helped stimulate a volume, scope and quality of medical research in this Country that has no parallel in history.

By following the same principles I believe we can accomplish the same objects in Federal aid to medical, dental and related education.